

REMARKS:

Claims 1-20 are pending. Claims 2 and 10 have been amended to correct for formalities such as typographical and grammatical errors and antecedent basis. New claims 16-20 have been added. Support for new claims 16 and 20 is found, *inter alia*, in originally filed claims 1 and 8. Support for new claim 17, is found, *inter alia*, in originally filed claims 1 and 9. Support for new claim 18 is found, *inter alia*, in originally filed claims 2 and 10. Support for new claim 19 is found, *inter alia*, in originally filed claims 4 and 12. Applicants have made amendments throughout the specification to correct for typographical and grammatical errors. Applicants have amended the Summary of the Invention section so that it reflects the amendments to claims 1 and 9, and the addition of new claim 17. Applicants have amended the Abstract section so that it reflects new claim 17. No new matter has been added. Reexamination and reconsideration of the application, as amended, are respectfully requested.

On pages 1 and 2 of the Office Action, the Examiner objects to Fig. 4 of the drawings, "because only that which is old is illustrated." In response, applicants have amended Fig. 4 by adding the designation "(Prior Art)" as indicated in red ink on the attached copy thereof. No new matter is introduced.

Also on page 2 of the Office Action, the Examiner objects to the drawings under 37 C.F.R. § 1.83(a). In particular, the Examiner states: "The drawings must show every feature of the invention specified in the claims. Therefore, the 'a radial dynamic pressure bearing section,' 'radial dynamic pressure surfaces' and 'a magnetic shield device' in claims 1 and 9. The 'a magnetic adsorbing member' in claims 2 and 10. The 'a yolk member' and the 'a mounting member' in claims 3 and 11. The features must be shown or the feature(s) canceled from the claim(s)." Applicants respectfully traverse these objections.

Fig. 1 shows the "radial dynamic pressure bearing section" and "radial dynamic pressure surfaces" of claims 1 and 9 as discussed, *inter alia*, in the specification on page 6, lines 11-29, page 8, lines 12-19, and page 9, lines 14-16.

Also, Figs. 1 and 2 show the "magnetic shield device", "magnetic adsorbing member", "yolk member", and "mounting member" of claims 1 and 9, 2 and 10, and 3 and 11, respectively, as discussed, *inter alia*, in the specification from page 9, line 11, to page 10, line 20, and from page 11, line 28, to page 12, line 13. Accordingly, applicants submit that the objection to the drawings is improper and should be withdrawn.

On pages 2-6 of the Office Action, the Examiner rejects claims 1-15 under 35 U.S.C. § 103(a) as being unpatentable over prior art Figs. 4 and 5 of the present application in view of Nii et al. (USP 5,574,322). A prima facie obviousness rejection requires that the prior art reference, or references, when combined, must teach all of the claim limitations. MPEP § 2143.03; *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q.2d (BNA) 1596 (Fed. Cir. 1988). Applicants respectfully traverse these rejections.

Claim 1 recites a motor that includes a radial dynamic pressure bearing section, thrust magnets, and a magnetic shield. The radial dynamic pressure bearing section includes opposing radial dynamic pressure surfaces formed on a rotor and a stator in which a dynamic pressure is generated in a lubrication fluid between the radial dynamic pressure surfaces to thereby rotatably support the rotor with respect to the stator. The thrust magnets are mounted on the rotor and the stator in a manner to oppose to each other for generating a magnetic action to levitate the rotor in an axial direction thereof and rotatably support the rotor in a thrust direction thereof with respect to the stator. The magnetic shield device is provided between the thrust magnets and the radial dynamic pressure bearing section for isolating the radial dynamic pressure bearing section from a leak magnetic flux of the thrust magnets.

Claim 9 recites a motor having a rotor and a stator. The motor includes a radial dynamic pressure bearing section, a thrust magnet unit, and a magnetic shield device. The radial dynamic pressure bearing section is formed between the rotor and the stator. The thrust magnet unit is formed on the rotor and the stator

for generating a magnetic action to levitate the rotor in an axial direction thereof and rotatably support the rotor in a thrust direction thereof with respect to the stator. The magnetic shield device is provided between the thrust magnet unit and the radial dynamic pressure bearing section for isolating the radial dynamic pressure bearing section from a leak magnetic flux of the thrust magnet unit.

Claim 17 recites a motor that includes a radial dynamic pressure bearing section, a thrust magnet unit, and a magnetic shield device. The radial dynamic pressure bearing section is between a rotor and a stator. The thrust magnet unit is formed on the rotor and the stator. The magnetic shield device is provided between the thrust magnet unit and the radial dynamic pressure bearing section for isolating the radial dynamic pressure bearing section from a leak magnetic flux of the thrust magnet unit.

Applicants submit that independent claims 1 and 9, and new independent claim 17, and thus, respective depending claims 2-8, 10-16, and 18-20, are patentable over prior art Figs. 4 and 5 and Nii because neither prior art Figs. 4 and 5 nor Nii teach or suggest, “a magnetic shield device provided between the thrust magnets (or magnet unit) and the radial dynamic pressure bearing section for isolating the radial dynamic pressure bearing section from a leak magnetic flux of the thrust magnets (or magnet unit),” as required by claims 1, 9, and 17.

On page 4 of the Office Action, the Examiner states, “the Prior art does not teach the magnetic shield device can be isolating the radial dynamic pressure bearing section from a leak magnetic flux of the thrust magnets.” Further, as shown in Figs. 4 and 5 and discussed in the specification on page 2, lines 13-24, the prior art figures do not teach or suggest, “a magnetic shield device provided between the thrust magnets (or magnet unit) and the radial dynamic pressure bearing section for isolating the radial dynamic pressure bearing section from a leak magnetic flux of the thrust magnets (or magnet unit).”

Also on page 4 of the Office Action, the Examiner states: “Nii et al. disclose a magnetic shield device (15 fig. 6) for the purpose of isolating or absorbing a leak

magnetic flux of thrust magnets (col. 5, lines 45-62)." However, as discussed in column 5, lines 45-62, the magnetic plates 15 are used to prevent the attraction of magnetic fluid 6b located within a magnetic fluid seal 13 by the leakage of magnetic flux from a magnetic bearing 7. Nii's focus on the interaction of magnetic flux with the magnetic fluid in the magnetic fluid seal is further evidenced by the following statement in column 5, lines 60-62: "If the magnetic fluid seal 13 is not significantly influenced by the leaking magnetic flux of the magnetic bearing 7, the magnetic plates 15 may be flat." Nii makes no mention of, "a magnetic shield device provided between the thrust magnets (or magnet unit) and the radial dynamic pressure bearing section for isolating the radial dynamic pressure bearing section from a leak magnetic flux of the thrust magnets (or magnet unit)." (Emphasis added.) Nii does not recognize the problem of isolating the radial dynamic pressure bearing section from a leak magnetic flux that may attract foreign matter to surfaces inside the radial dynamic pressure bearing section. This foreign matter may damage or scrape the rotor or the stator, or their component parts. Therefore, there is no suggestion to combine prior art Figs. 4 and 5 with Nii to teach or suggest the requirements of claims 1, 9, and 17.

Accordingly, applicants submit that independent claims 1 and 9, and new claim 17, their respective depending claims 2-8, 10-16, and 18-20, are patentable over the prior art Figs. 4 and 5 in view of Nii.

In view of the foregoing, it is respectfully submitted that the application is in condition for allowance. Reexamination and reconsideration of the application, as amended, are requested.

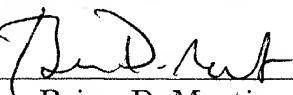
If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call the undersigned attorney at the Los Angeles, California telephone number (213) 337-6700 to discuss the steps necessary for placing the application in condition for allowance.

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If there are any fees due in connection with the filing of this response, please charge the fees to our Deposit Account No. 50-1314.

Respectfully submitted,
HOGAN & HARTSON L.L.P.

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